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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,692	07/10/2006	Yorio Takahashi	008509-07106	4691
53989 7590 01/29/2009 Dickinson Wright PLLC James E. Ledbetter, Esq. International Square 1875 Eye Street, N.W., Suite 1200 Washington, DC 20006				
EXAMINER				
CONNOLLY, MARK A				
ART UNIT		PAPER NUMBER		
2115				
MAIL DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/585,692

**Applicant(s)**

TAKAHASHI, YORIO

**Examiner**

MARK CONNOLLY

**Art Unit**

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-78 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) See Continuation Sheet is/are rejected.  
7) ☒ Claim(s) 2,3,5-7,11,14,23,26,28,29,31-33,37,40,49,52,54,55,57-59,63,66,75 and 78 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-646)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/10/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims rejected are 1,4,8-10,12,13,15-22,24,25,27,30,34-36,38,39,41-48,50,51,53,56,60-62,64,65,67-74,76 and 77.

**DETAILED ACTION**

1. Claims 1-78 have been presented for examination.

***Claim Objections***

2. Claims 15, 21, 24, 41, 47, 50, 59, 67, 73 and 76 are objected to because of the following informalities:

- a. Claims 15, 41 and 67 refer to a third and fourth switch but never refers to a second switch.
- b. Claims 21, 47 and 73 refer to a fifth and sixth switch but never refers to a second, third or fourth switch.
- c. Claims 24, 50 and 76 refer to a fifth and sixth switch but never refers to a third or fourth switch
- d. Claim 59 should have its dependency corrected to depend from claim 56 rather than claim 38.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 15-20, 41-46 and 67-72 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In particular, claims 15, 18, 41, 44, 67 and 70 recite that a removable medium is both loaded and ejected upon depressing a fourth switch which is located on an inner portion of the information storage device. It is the examiners understanding that a switch located on an inner portion of the information processing apparatus (i.e. a CD-ROM drive) acts as a medium detection switch or a tray lock [0194 and 0225] rather than a loading/ejecting switch. The third switch on the other hand appears to be a traditional load/eject button commonly seen on CD-ROM drives which either opens (i.e. eject the CD when a tray is closed) or closes (i.e. load the CD when the tray is extended from the CD-ROM or in a state of ejecting) a CD tray for example. Therefore, it is unknown what is intended for the actuation of the third and fourth switches regarding the loading and ejection operation of the information processing apparatus.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4, 30 and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 4, it is unclear as to which switch (line 3, 10 or 15) is referred to in line 23 of the claim. It is believed that the switch refers to the switch found on line 3 of the claim. For examination purposes, the switches on lines 3 and 23 are interpreted as a "first switch", while the switch on line 15 is interpreted as a "second switch."

With respect to claims 30 and 56, these also present substantially similar indefinite language which should also be addressed in substantially the same manner.

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 9, 27, 35, 53 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su et al [Su] PGPUB 20030219134.

9. Referring to claim 1, Su teaches the information processing apparatus substantially including:

e. an information storage device in which a loading/ejecting mechanism for a removable medium is operated according to a change in a depressed state of a switch [0001]. In particular, a CD-ROM device inherently comprises a loading/ejection mechanism which operates according to the state(s) of a load/eject button(s) which either opens a lid for allowing a user to insert the CD, for operating the opening of a drawer for inserting the CD, or for receiving or ejecting the CD from a slot type receptacle.

f. a control device which records data on the removable medium and/or reads out data from the removable medium by controlling the information storage device [0001]. In particular, CD-ROM devices inherently comprise a control device for reading the CD loaded in the CD-ROM drive.

g. a power supply device capable of performing and stopping power supply to the information storage device and to the control device [0010 and 0045].

h. a continuous power supply device capable of supplying power when power supply by the power supply device is stopped [0010 and 0045].

Although Su teaches providing an audio control device with power either from the primary power source or the auxiliary power source via power supply controller [0010], it is not explicitly taught to supply power from the selected power source to a power supply controller which controls the information storage device so that the removable medium loading/ejecting mechanism is operated, by controlling the power supply device so that the power supply device supplies power to the information storage device or to the information storage device and the control device.

Because Su does explicitly teach that the field of the invention is “to play music from a CD-ROM device when the computer system is power-off” [0001], it is obvious if not inherent that the loading/ejecting mechanism and control device would be powered since these components are required for playback operation of a CD in a CD-ROM drive. In addition, because Su additionally teaches CD-ROM operation via auxiliary power supply ( $V_{aux}$ ) when the primary power supply to the PC is powered off [0004] it is obvious if not inherent that the loading/ejecting mechanism and control device would be powered via auxiliary power supply since Su suggests that the CD-ROM device is powered only by auxiliary power supply rather than the primary power supply when the computer is off.

10. Referring to claim 9, as stated above, drawer and slot type CD-ROM devices are well known in the art which comprise an eject button on the outside face of the device. In addition, it is also well known in the art that there exists a switch internal to the CD-ROM housing for detecting when a CD tray has been retracted back into the CD-ROM drive or when a CD has been accepted into the CD insertion slot so that reading and processing of data on the CD can begin. It is obvious if not inherent that these switches would retain their functionality even

during the power off CD mode because it provides the necessary means to initiate reading of the inserted CD.

11. Referring to claims 27, 35, 53 and 61, these are rejected on the same basis as set forth hereinabove. Su teaches the apparatus and therefore teaches the information storage device and method performed by the apparatus.

12. Claims 4, 8, 12, 30, 34, 38, 56, 60 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su as applied to claims 1, 9, 27, 35, 53 and 61 above, and further in view of Iwata<sup>1</sup> PG PUB No 20010056509.

13. Referring to claim 4, this is rejected substantially on the same basis as set forth hereinabove. Although Su teaches operating in either a normal operating mode or in a power off CD mode, it is not explicitly taught how the system identifies which of these two modes it should enter. Iwata explicitly teaches selecting between a first mode of operation requiring booting of the operating system when actuating a power switch and a second mode of operation without activating the operating system when actuating a second switch [0020]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Iwata into the Su system for selecting a normal operation mode when actuating a first switch and the power off CD mode when actuating a second switch because it provides a means for a user to easily start the system in either one of the two operational modes.

14. Referring to claim 8, Su teaches CD audio data [0001].

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<sup>1</sup> Cited by applicant



15. Referring to claims 12, 30, 34, 38, 56, 60 and 64, these rejected on the same basis as set forth hereinabove.

16. Claims 10, 13, 21-22, 24-25, 36, 39, 47-48, 50-51, 62, 65, 73-74 and 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su and Iwata as applied to claims 1, 4, 8-9, 12, 27, 30, 34-35, 38, 53, 56, 60-61 and 64 above, and further in view of Sun et al [Sun] PG PUB 20050289567.

17. Referring to claims 10, 21-22, although Su teaches loading and ejecting a removable medium to and from an information processing apparatus, it is not explicitly taught to have a locked state to prevent ejection of the removable medium until the locked state transitions to a non-locked state. Sun explicitly teaches that if attempting to eject an optical disk during disk access, the ejection is prevented until the disk has stopped rotating in order to prevent damage to the disk [0043 and 0059]. In other words, when the user presses the eject button, the disk drive will first cancel any read operation then allow the disk to stop rotating. Once the rotation has stopped, the drive will then initiate the ejection operation previously requested by the user. It would have been obvious to include the locking means taught by Sun into the Su system because it provides a means to prevent damage to an optical disk in the event that a user attempts to eject the disk during disk access. Because the eject operation is not performed until after the disk rotation has stopped, it is interpreted that the logical state of the load/eject button is saved while halting the disk rotation to that the eject operation could be performed thereafter.

18. Referring to claims 13, 24-25, 36, 39, 47-48, 50-51, 62, 65, 73-74 and 76-77, these are rejected on the same basis as set forth hereinabove.

***Allowable Subject Matter***

19. Claims 2-3, 5-7, 11, 14, 23, 26, 28-29, 31-33, 37, 40, 49, 52, 54-55, 57-59, 63, 66, 75 and 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK CONNOLLY whose telephone number is (571)272-3666. The examiner can normally be reached on M-F 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Connolly/  
Primary Examiner, Art Unit 2115  
1/27/09

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Primary Examiner  
Art Unit 2115